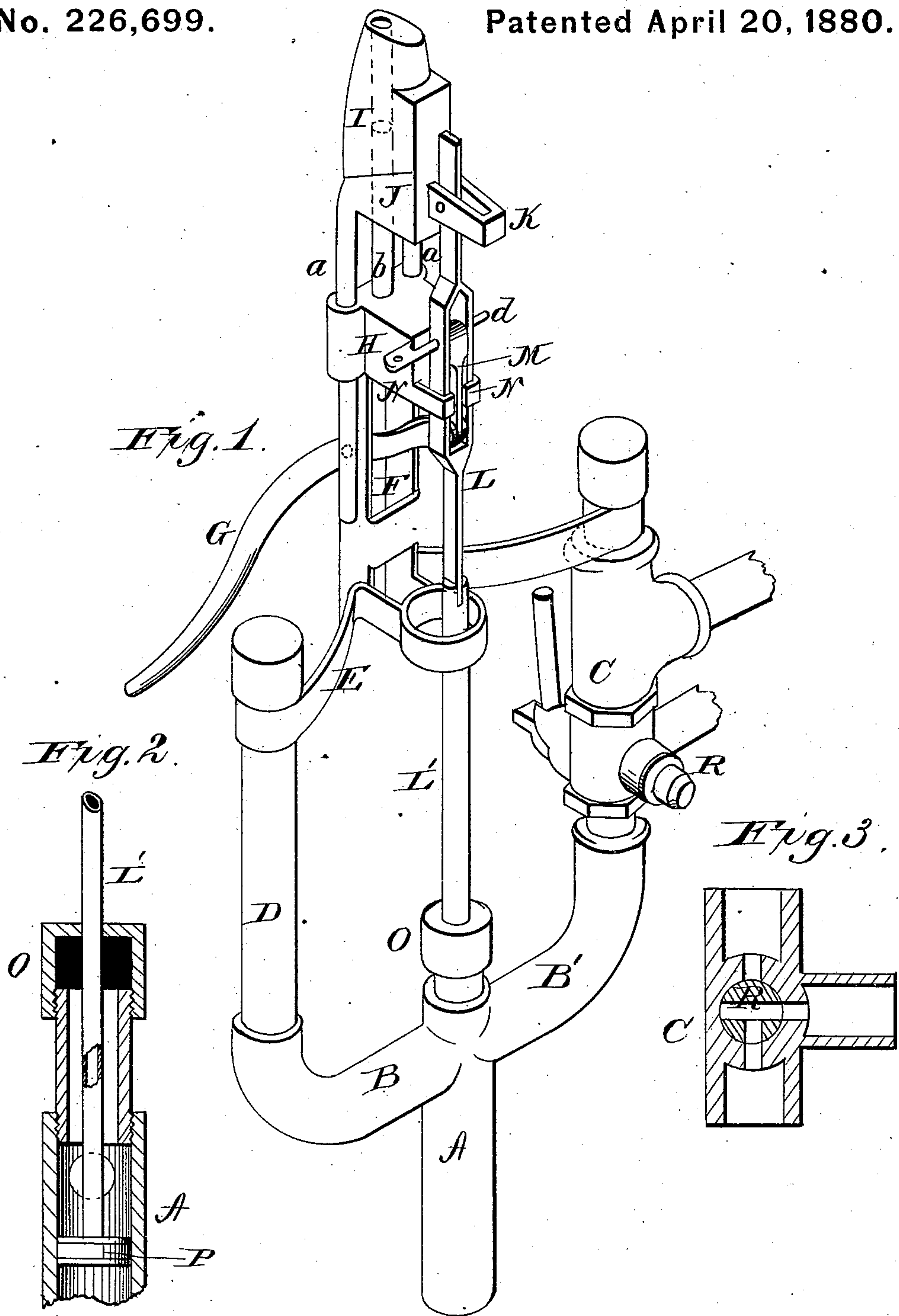


J. & R. BEAN.
Windmill-Pump.

No. 226,699.

Patented April 20, 1880.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN BEAN AND ROSCOE BEAN, OF SPRINGFIELD, OHIO.

WINDMILL-PUMP.

SPECIFICATION forming part of Letters Patent No. 226,699, dated April 20, 1880.

Application filed January 9, 1880.

To all whom it may concern:

Be it known that I, JOHN BEAN and ROSCOE BEAN, of Springfield, in the county of Clarke, and in the State of Ohio, have invented certain new and useful Improvements in Windmill-Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Our invention relates to that class of pumps in which the upper and lower portions of the pump are connected by the discharge-pipe and by another pipe or rod; and it consists in the construction and arrangement of parts, as will be hereinafter more fully set forth, and pointed out in the claims.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of our improved pump. Figs. 2 and 3 are detailed views of parts thereof.

A represents the pump-cylinder, or chamber connecting with the pump-cylinder, provided near the top with branches B B', the former connecting with the discharge-pipe C and the latter with the pipe or rod D, both of which extend upward and connect with the pump-platform in the usual manner for this class of pumps.

The upper ends of the parts C and D are connected by a casting, E, having a slotted standard, F, extending upward for a suitable distance, in which standard the pump-handle G is pivoted. The standard F is surmounted by a head, H.

I represents the lower end of a pitman or actuating rod of a windmill. On one side of the lower end of this pitman-rod is attached a casting, J, provided with a slotted arm, K, of suitable length for the actuating-rod of the pump, when attached to the pump-handle, to vibrate with the motion of the pump-handle G, mounted on the stationary fulcrum.

Instead of the slotted arm K we may use a pin for a guide, which pin would then work in

a slot in the pump-actuating rod L. This guiding-coupling may have a hole through it, or other device, for connecting the actuating-rod L, when detached from the handle, to the windmill-pitman I. If a hole is used the same pin can be used in the handle when used for hand-power, or used in the guide-coupling above when used by other power. The object of this guiding-coupling is to connect the windmill-pitman I and the pump-actuating rod L when not in use by hand and to be used by power; also, when in use by hand, the two rods disconnected, the guiding-coupling will admit of the vibration of the pump-rod when attached to the handle when said handle is mounted on a stationary fulcrum.

In devices already in use, where the fulcrum is stationary, they do not admit of the vibration of the rod to conform with the motion of the handle without springing the rod and making very hard work, owing to the great friction, whereas with the above device we do away with the friction entirely. We further employ one or more rigid bars for the purpose of guiding and holding the lower end of the windmill-pitman or actuating-rod I in line with the pump-actuating rod L. These bars or rods *a a* may be attached to the lower end of the pitman I or to the casting J and corresponding slides or boxes in the head H, or the pump-stock, or handle-fulcrum, said parts being stationary; or one or more guiding-bars, *b*, may be attached rigidly to the pump-stock or fulcrum and the slide or box made in the lower end of the pitman I for the same purpose.

In the pump-actuating rod L is a slot, into which the end of the handle G projects, and in the end of said handle is pivoted a link, M, and this link turned upward and connected to the rod by a pin, *d*.

The head H of the handle-fulcrum is provided with two hooked side arms, N N, which embrace the sides of the slotted portion of the pump-actuating rod L and act as a guide for the same. This leaves the slot in the rod L open, so that when the pin *d* is removed the link M may be dropped forward without interfering with the movement of the rod when the same is attached to the windmill-pitman I.

The lower portion, L', of the pump-actuating rod is hollow and forms an air-chamber. It passes through a packing-box, O, on the upper end of the pump cylinder or chamber, and
5 has the piston F secured to its lower end. In the discharge-pipe C is inserted a three-way cock, R, to cause the pump to throw the water straight up the discharge-pipe or out at one side, or, in other words, in two different di-
10 rections, as required.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a windmill-pump, the combination of
15 the pump-actuating rod L, wind-engine pitman I, guiding-coupling K, and one or more guiding-bars, all constructed and arranged

substantially as and for the purposes herein set forth.

2. The hooked arms N, forming a stationary
20 guide, in combination with the slotted pump-rod, for the purposes set forth.

3. The combination of the slotted rod L, handle G, link M, and hooked arms N, sub-
stantially as and for the purposes set forth. 25

In testimony that we claim the foregoing we have hereunto set our hands this 22d day of December, 1879.

JOHN BEAN.
ROSCOE BEAN.

Witnesses:

WM. R. HOMER,
P. B. MARTIN.